SOUTH PARK BRIDGE – FINAL DESIGN
INTERMEDIATE DESIGN SUBMITTAL

OPEN ISSUES LIST (OIL)
July 2, 2009

The SPB Intermediate Design submittal describes the proposed South Park Bridge replacement to a level less than that necessary for "Issue for Bid" construction documents, by intention. Provided below is list of outstanding issues yet to be addressed. This is provided to document the status of the documents and assist in review of the Intermediate Design submittal. The open issues are intended to be resolved prior to the 95% Final Design submittal.

General

1. Complete Right of way negotiations/temporary construction easements with the Boeing Company.
2. Complete Right of Way exhibits and legal description.
3. Determine if, and how, to assign the risks associated with sinking of the caisson and micro-tunneling. (Will a geotechnical baseline report be developed?).
    a. If / how to pay for removal of boulders discovered while sinking the caissons.
    b. If / how to pay for removal of boulder discover while driving the micro-tunnel.
    c. If / how to pay for changed conditions if a timber pile from the previous bridge obstructs the driving of the micro-tunnel.
4. Resolve the design parameters for the design of the earthquake drains.
5. Reconcile the use of the following within the plan set as a whole:
    a. "New" and "Proposed".
    b. "Abutment 1" and "Pier 1" as well as "Abutment 6" and "Pier 6".
    c. "Pier Protection" and "Fender System".
    d. "Resistance Gate" and "Traffic Gate" and "Traffic Barrier".
    e. "Warning Gate" and "Traffic Gate"
6. Complete test pile and test pile monitoring program.
7. Complete HAER documentation for the brick road.
8. Divide the entire plan set into volumes of less than 225 sheets each.
9. Provide information related to planned seismic repairs within the Design Requirements document as well as the plan set.

Volume 1 of 2

GN – General

SQ – Summary of Quantities

1. Complete characterization of the soils within the upper 18 feet of the caisson excavation with regard to contaminated or hazardous status.
2. Characterize the upland soils of the north and south ends of the project with regards to contamination and/or hazardous status.

EN – Environmental Compliance Notes

1. Develop plan sheets describing the “Environmental Compliance” requirements of the project and associated permitting requirements.
2. Describe required BMPs and other specifics necessary for environmental and permitting compliance.
3. Determine if Pier 5 construction constitutes “in-water” work.
4. Consolidate project specific environmental compliance requirements in the EN sheets.

RS – Roadway Sections

AL – Alignment and Right of Way

SP – Site Preparation

1. Identify the limits of clearing and grubbing on the north and south bank.
2. Identify the limits and extent of removal of riprap and debris within the tidal zone of the shorelines.

EC – Erosion Control

SA – Staging Areas

RD – Roadway Plan and Profile

1. Provide final contours i.e. grading plans
2. Provide the volume of unsuitable soils in the profile sheets.

DP – Driveway Plan and Profile

IS – Intersection Plan

AS – Retaining Walls

1. AS04 – Rename and move to “CS” portion of plan set.
2. AS26 – Reconcile the art features with the SE wall at the SW corner.
3. Confirm the revised area of the earth quake drains related to construction staging.

DR – Drainage Plan and Profile

1. Check drainage vault for buoyancy.
2. Confirm the project will be allowed to connect to the combined sewer system.
3. Provide Drainage Structure Notes sheets.

IL – Illumination

1. Modify the power for changing the fire protection system from a dry system to a wet system.
2. Coordinate with SCL regarding temporary power during construction and confirmation of service.
3. IL07 – Reconcile panel mounting with need to preserve 6-foot wide sidewalk.
4. Provide pedestrian lighting along the path through the rain garden and interpretive center.

UT – Utility Plans

1. Complete re-routing of Boeing gas and telecommunication lines.
2. Provide bascule pier sump and sump pump details.
3. Resolve temporary utility connections to the existing bridge.
4. Advance demonstration of absence of utility conflicts or resolve utility conflicts once potholing information is available.
5. Detail utility routing within bascule piers.

FP – Fire Protection

1. Change system from dry system to wet system.

CH – Channelization and Signing

LS – Landscape Plans

LM – Shoreline Mitigation

1. Address the requirements for shoreline development/restoration on the north and south bank of the waterway.

AF – Art Features (Rockers)

1. Provide architectural lighting details as determined by the project artist.

TC – Traffic Control

CS – Construction Sequence

1. CS15 – Resolve the measures to be utilized to prepare existing bridge for construction of the proposed bridge – this may include consolidation grouting or modifications to the bridge that would allow physical adjustments to accommodate construction induced foundation movement.

2. Evaluate the potential affects of north shoreline modifications, demolition trestle installation (vibration) and existing pier demolition on the Boeing Company building in the northeast quadrant of the project site.

DM – Demolition

1. Provide wharf demolition plan(s).

Volume 2 of 2

GN – General

BG – Bridge General

SB – Soil Borings

AS – Approach Structures

1. AS04 – Consider changing construction sequence and connection details to allow erection of the fascia truss after casting of deck.
2. AS04 – Move “CS” portion of plan set.
3. AS72 – Verify two spare 4 inch ducts are provided.
4. AS37 – Consider staggering negative moment reinforcement over piers to mitigate the potential for a transverse crack in the deck at the termination of the reinforcement.
5. Show sidewalk transition from 1% on the bascule piers to 2% on the approach structures.

BC – Bascule Caisson

1. Resolve how water will be placed within dredge wells.
2. Design for “dry-dock” condition and modify plans accordingly.
3. BC00 – Verify there is sufficient distance between the existing bridge and the Control Tower on Pier 3 to allow for construction and demolition.
4. BC00 – Verify the proposed fender system piles adjacent to southwest corner of Pier 4 and northeast corner of Pier 3 can be driven after the caisson cap, pier walls, control tower and control tower roof have been constructed.
5. BC20 and BC21 – Revisit the design of cutting shoe to reduce or eliminate the detailed effort required to construct a close fitting truss of angles and eliminate the need to fasten the metal skin to the frame from the inside of the frame.

BP – Bascule Pier

1. Provide bird screens between prestressed concrete girders at channel wall of the bascule piers and other associated bird protection details.
2. Provide live load shoe shear block details.
3. BP11 & BP12 – Show windows in section.

4. Provide bascule span full open stops.
5. Provide tail restraint to the full open position.
6. Provide inspection/access platform and walkways to the counterweight and tail locks.
7. Locate and vet the number and location of water spigots (for maintenance purposes) within the bascule piers and on the roadway surface.
8. Detail rustication

CT – Control Tower

1. Address need for staff lockers.
2. CT09 – Resolve 7'-0" vertical clearance in both stairs.
3. Resolve location and mounting of lightening protection system.
4. Provide HVAC drawings.
5. Provide plumbing drawings.
    a. Include on-demand water heater.
6. Detail rustication
7. Detail brick veneer

BL – Bascule Leaves

1. Identify fracture critical steel plates.
2. BL47 – Resolve sacrificial joint at tip of leaves details.
3. BL47 – Incorporate segmental joint at tip of leaves details.

PR – Pedestrian Railing

1. Revisit the rail panel to rail post connections for some of the gear panels to provide increased rigidity.
2. Provide "user friendly" method and details of attaching the post mount gears to the pedestrian railing frame.

TR – Traffic Barrier

1. Detail radiused traffic barrier connection at interface between the bascule pier and the bascule span.
2. Provide traffic barrier layout on bascule piers and bascule span.

RS – Roadway Lighting Support

1. Add sheets for roadway light support details (elbow).

BM – Bascule Mechanical

1. Provide tail lock drawings.

2. Evaluate the need for, and potential for, placement of lift points within the bascule pier for maintenance purposes.
3. Vet the lateral clearances provided to the machinery with King County and third parties.

BE – Bascule Electrical

1. Submit application for NEC variances for bascule drive motors and tail locks.
2. Locate and vet the number and location of electrical outlets (for maintenance purposes) within the bascule piers and on the roadway surface.
3. Layout conduit within Control Tower and Bascule Piers
4. Provide navigation lighting drawings
5. Detail submarine cables
6. Provide limit switch drawings
7. Provide electrical details (horn compressor / horn mounting / Electrical cabinet layout, etc.)
8. Provide lightning protection and grounding drawings
9. Provide intercom system, CCTV, PLC Cabinet drawings
10. Provide schedules for panel boards / transformer / wiring / circuits / raceways
11. Provide diagrams for control logic, motor starters and speed controls

PP – Pier Protection

1. Resolve the scour elevation to be used for the pier protection to be: 1) elevation – 33.0 feet per ABKJ, 2) elevation -29.0 feet per Herrera's 2007 report or, 3) a new elevation to be determined by subsequent supplemental scour analysis.